

## **ABSTRACT Of THE DISCLOSURE**

There is disclosed a method of selecting in real time a soil stabilizing protocol for clay-bearing soils occurring in construction sites, comprising the steps of: obtaining soil conductivity data values at selected locations within a defined site without disturbing the surface of the soil; correlating the soil conductivity data values with corresponding estimates of soluble sulfate levels; recommending a calcium-based soil stabilizing protocol if the estimated level of soluble sulfates is less than a predetermined threshold; and performing a laboratory analysis of soil samples from selected portions of the defined site wherein the estimated soluble sulfate concentration equals or exceeds the predetermined threshold.